BOOK REVIEWS

POISONS—Their Isolation and Identification. By Frank Bamford, B.Sc., Late Director of the Medico-Legal Laboratory, Cairo. Third Edition, revised by C. P. Stewart, D.Sc., Ph.D., Reader in Clinical Chemistry, University of Edinburgh. 23 illustrations. The Blakiston Company, Philadelphia, 1951. 316 pages. $5.50.

As is indicated in the above title, this book has been revised by Dr. C. P. Stewart, who is toxicologist at the University of Edinburgh. Frank Bamford had had a very extensive experience as director of the medico-legal laboratory of the Government of Egypt, in Cairo, and his first edition of this book commanded immediate attention of toxicologists because of the clarity and completeness of the qualitative chemical procedures which he described for the isolation and identification of poisons. In this third edition, Dr. Stewart has kept the spirit of Bamford's previous two editions, and has added important recent information. Short-cuts are described, many pieces of laboratory equipment are described and illustrated with clear cuts, and the interpretation of symptoms for purposes of gaining clues which will guide the chemist in his search for the poison is especially helpful to the beginner. The book is intended only as a manual for the chemical laboratory and does not pretend to yield information concerning the clinical phases of toxicology, such as early diagnosis and treatment of cases of poisoning. Although it is a very satisfactory guide to the qualitative identification of poisons, there are few aids to the quantitative estimation of the amount of the poison present, except for alcohol, arsenic, lead, bismuth, borate, fluorine and zinc, and for an inadequate quantitative test for barbiturates. Another defect in the book is the amount of space devoted to general statements, especially concerning the toxic agents contained in many plants which are rarely the cause of poisoning, yet without specific tests which would be of aid in the identification of these poisons.

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AN ATLAS OF ANATOMY—Third Edition. By J. C. Boileau Grant, M.C., M.B., Ch.B., F.R.C.S. (Edin.), Professor of Anatomy in the University of Toronto. **By Regions—Upper limb, abdomen, perineum, pelvis, lower limb, vertebrae, vertebral column, thorax, head and neck, cranial nerves and dermatomes.** The Williams and Wilkins Company, Baltimore, 1951. 657 pages (637 pages of figures and 20 pages of index). $12.00.

The passage of Grant's *An Atlas of Anatomy* into its third edition during the short space of some eight years is testimony to its general popularity and usefulness. The wide and ready acceptance of the work by student and practitioner alike is doubtless due to the emphasis given to the salient and important, rather than to an exhaustive treatment. Here the student finds not only illustrations of significant features of anatomy but their interpretation as provided by an experienced teacher.

The new edition is larger by some 70 new illustrations with improvement or replacement of many of the old figures. Of the new additions, the most noteworthy are the figures systematically revealing the arrangement of structures in the female pelvis and perineum, the new advances in the designation of the pulmobronchial segments, and the recent modifications of the dermatome patterns as derived from the clinical and experimental work of Keegan. These many additions have mended earlier deficiencies and immeasurably added to the value of the atlas to place it among the best available. Of deficiencies which still remain, there are two: First, there is little on the variations in division of the recurrent laryngeal nerve which is so important to surgery of the thyroid gland; second, the absence of roentgenograms which, for instance, are far superior in revealing the epiphyses of bones in the manner in which the student usually observes them.

A word should also be said on the great improvement in the reproduction of the illustrations. In earlier editions these were somewhat flat, lacking in contrast and brilliance. The sharpening up of the figures has done much for their clarity and they have gained in the third dimension.

In short, Grant's *Atlas* has gone from strength to strength showing advance with every edition to place it in the forepart of works of this nature. Student and practicing physician could make no better selection for their studies.

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THE MANAGEMENT OF FRACTURES, DISLOCATIONS, AND SPRAINS—Fifth Edition. By John Albert Key, B.S., M.D., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; and H. Earle Conwell, M.D., F.A.C.S., Associate Professor of Orthopedic Surgery, University of Alabama School of Medicine. The C. V. Mosby Company, St. Louis, 1951. 1232 pages. $16.00.

This is one of the old standard American texts dealing with fractures, dislocations and sprains. It has been the standard work since 1934. The general formation of the text remains the same. It is profusely and well illustrated. The text is excellent in a general sense and the principles advocated are the result of extensive experience of the authors.

The composite ideas and experience of the two authors, it is an excellent text for anyone having to do with treatment of injuries of this type. Quite properly, the book tends toward conservatism. By following the directions and advice of this text in the care of injuries of the musculoskeletal system, certainly many unnecessary complications can be avoided.

The section on compound injuries is excellent. There is little emphasis on prophylactic antibiotic therapy. For example, the use of sulfa drugs locally to prevent infection is advised; no comment is made upon any of the newer antibiotics which have been developed during the past four years. There is, perhaps, not enough emphasis on the drainage of compound wounds in the management of compound injuries. The over-all discussion of principle, however, is excellent and bears careful study.

The various fractures occurring in the musculoskeletal system are covered adequately and completely with instructive illustrations. There can be no criticism of any portion of this book in that respect.

The section having to do with fractures of the forearm and elbow region emphasizes conservative management. The operative procedures illustrated, however, use either wire loops or the onlay plate and screw fixation principle. No mention is made of the use of intramedullary pin fixation for problems of this type. Apparently the only areas in which intramedullary nail fixation is advocated are in the tibial shaft and femoral shaft.

In the section on fractures of the hand, there is perhaps a bit too much emphasis on the use of traction and not quite enough on the maintenance of function. In inexperienced hands, a banjo-splint or a skeletal traction apparatus applied to an injured digit can lead to irreparable damage unless the principle of functional movement during the course of healing is followed through. The use of splints of this type predisposes to treating fractures of the hand on the basis of x-ray appearance instead of evaluation of the functional range of movement as an end result.

Generally, the section on injuries of the hip joint is excellent, but that portion having to do with fractures of the posterior acetabulum margin associated with dislocation of the hip does not mention immediate operation and reconstruction of the acetabular margin as a primary procedure. Conservative management of this type of injury has produced rather poor results in most instances. The results with reconstruction have been better. That part of the text dealing with treatment of the classical types of fracture of the hip is outstanding.

Always one of the classical portions of this book, the section on fractures of the shaft of the femur still is probably one of the major attractions. The same can be said for the section on fractures of the tibia and fibula.

In the discussion of fractures of the ankle area conservatism is stressed perhaps a bit more intensely than is necessary. There are certain positive indications for open repair of ankle joint injuries and these indications are not as clearly delineated as they should be.

Emphasis is laid upon the use of traction in the treatment of os calcis injury. There is a growing trend away from the use of this method generally.

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METABOLIC METHODS—Clinical Procedures in the Study of Metabolic Functions. By C. Frank Consolazio, Chief of Biochemistry, United States Army, Medical Nutrition Laboratory, Chicago, Ill.; Robert E. Johnson, M.D., D.Phil. (Oxford), Professor and Head of the Department of Physiology, University of Illinois, Urbana, Illinois; and Evelyn Marek, M.A., Biochemist, United States Army Medical Nutrition Laboratory, Chicago, Illinois. The C. V. Mosby Company, St. Louis, 1951. 471 pages. $6.75.

This valuable book is essentially a reprint of the U. S. Army "Report of a Manual of Metabolic Methods" by the same authors. Only very slight changes in textual material have been made, such as the addition of two or three new procedures. Changes in the excellent illustrations of apparatus, diagrams, and alignment charts for calculations are also negligible. A section on preservation of animal tissues in the field for histological studies has been added, and the useful tables on the normal ranges of the composition of body fluids have been revised and enlarged. The principal improvement is the inclusion of a fairly extensive bibliography (through 1949), arranged by subject matter.

The book presents in detail a large number of procedures for conducting metabolic studies. Collection and storage of specimens and the use of spectrophotometers, fluorometers, and flame photometers are well discussed. Sections on microbiological methods, physiological measurements, and studies in the field are included. The treatment of techniques for metabolic wards and of clinical laboratory procedure such as tolerance and function tests is intentionally brief. The largest sections, dealing with the analysis of biochemical constituents, are comprehensive; some of the less common or more difficult procedures, however, such as the determination of protein-bound iodine, are relegated to the bibliography.

The methods listed are those which have been in use by the authors in the Medical Nutrition Laboratory. The careful details, the list of precautions, and the sample calculations included should be of value to those with limited training and experience in such methods. Alternative procedures, however, are rarely included. Such a presentation lacks flexibility, and there are no principles to guide those who might need to modify the procedure in any detail, or to use any apparatus other than that described. Despite a clear exposition of spectrophotometry and of spectrophotometers, filter photometers are barely mentioned, and the emphasis on transmittance rather than optical density is unfortunate. Advantage is not always taken of distinct improvements of original methods (as for example, the Frame, Russel and Wilhelmj modification of Folin's method for amino nitrogen). These are relatively minor drawbacks, however, and those engaged in clinical biochemical work or related fields should find it of great value.

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FRONTAL LOBOTOMY AND AFFECTIVE BEHAVIOR —A Neurophysiological Analysis—John F. Fulton, M.D., Sterling Professor of Physiology, Yale University. W. W. Norton & Company, New York, 1951. 159 pages, $3.00.

This small book is based on the author's Salmon Lectures. Of the 129 pages of text, the general practitioner of medicine will profit most from the last 33, which embrace the rather meager knowledge that is at present available regarding frontal lobe function in man. Certainly every psychiatrist should be familiar with this material, which is becoming part of our basic knowledge of neurophysiology, and upon which psychosurgery rests.

The major portion of the book deals with experimental work in animals, as well as presenting an excellent historical background. It is, however, at times rather slow going, and perhaps with this book the lamentable practice so frequently pursued in reading detective novels, that is, reading the last chapter first, might be recommended.

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PROCEEDINGS OF THE THIRD INTERNATIONAL CONGRESS OF THE INTERNATIONAL SOCIETY OF HEMATOLOGY, Cambridge, England, August 21-25, 1950—Carl V. Moore, U.S.A., Editor-in-Chief. Grune and Stratton, New York, 1951. 593 pages. Cloth bound, $10.00; paper bound, $8.00.

This is the first review volume of *Proceedings* although there have been previous conferences of this organization, in 1946 and in 1948. Included are 176 papers, many only in abstract. The majority of the papers are in English and many of those which are not have English summaries. The text is in four major divisions: I. Anemias and related subjects; II. Immunohematology; III. Leukemia and related diseases; IV. Coagulation, purpura and related subjects. In addition to careful indexing, within each section the papers are arranged according to topic so that reference is easy. Review papers are not included, but the book does contain several papers of general interest, such as Dameshek's on "Acquired Hemolytic Anemia."

Among the many interesting presentations is Owren's suggestion that vitamin B_{12} is not the complete therapy for pernicious anemia. He offered evidence that the level of prothrombin in the blood is not restored to normal by B_{12} therapy. An abnormal hemoglobin has also been demonstrated, and he feels this might be related to the macrocytosis which persists after treatment. Prothrombin and globin in the hemoglobin molecule apparently need a factor other than B_{12} for their normal formation in pernicious anemia.

It is refreshing to see in one volume papers collected from many countries, and to realize what fine work is being done elsewhere. Papers for the most part are in rather limited fields. Consequently, this volume will be of most value to those seriously interested in hematology, either in the clinical, laboratory, or investigative fields. Along with journals in this subject, it should be available for reference to all workers in the field of hematology.